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10/665,802	09/18/2003	Darrin W. Kabel	702.256	6140

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EXAMINER

GIBSON, ERIC M

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/665,802

Applicant(s)

KABEL ET AL.

Examiner

Eric M. Gibson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15, 20-41, and 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Fruchterman et al. (US005470233A).

Per claim 1, Fruchterman teaches a method including calculating a course between two or more waypoints (column 4, lines 47-54), analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34), and providing an alert signal when the course contains user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claim 2, Fruchterman teaches calculating the course to avoid the area (column 17, lines 47-48).

Per claim 3, Fruchterman teaches identifying points of interests that are not necessarily waypoints (column 8, lines 3-4).

Per claim 4, Fruchterman teaches recalculating the course to avoid the area (column 17, lines 47-48).

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Per claim 5, Fruchterman teaches using GPS to determine present location coordinates (column 7, lines 9-11) and a predetermined area around the area of exclusion (column 17, lines 24-49).

Per claim 6, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 7, Fruchterman teaches that the area of exclusion can be any area relevant to a blind pedestrian and gives an example of a body of water (column 5, lines 1-10).

Per claim 8, Fruchterman teaches a method of calculating a course between two or more waypoints (column 4, lines 47-54), analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34), and calculating the course to avoid the user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claim 9, Fruchterman teaches recalculating the course to avoid the area (column 17, lines 47-48).

Per claim 10, Fruchterman teaches identifying points of interests that are not necessarily waypoints (column 8, lines 3-4).

Per claim 11, Fruchterman teaches using GPS to determine present location coordinates (column 7, lines 9-11) and a predetermined area around the area of exclusion (column 17, lines 24-49).

Per claim 12, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 13, Fruchterman teaches that the area of exclusion can be any area relevant to a blind pedestrian and gives an example of a body of water (column 5, lines 1-10).

Per claim 14, Fruchterman teaches using GPS to determine present location coordinates (column 7, lines 9-11) analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34) around a predetermined area (column 19, lines 60-65).

Per claim 15, Fruchterman teaches providing an alert signal when the area contains user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claim 20, Fruchterman teaches that the area of exclusion can be any area relevant to a blind pedestrian and gives an example of a body of water (column 5, lines 1-10).

Per claim 21, Fruchterman teaches a method including calculating a course between two or more waypoints (column 4, lines 47-54), using GPS to determine present location coordinates (column 7, lines 9-11) which includes a heading, analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34) including heading information (see for example column 9, line 17), and providing an alert signal when the course contains user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claim 22, GPS data includes the equivalent of an electronic compass signal.

Per claim 23, Fruchterman teaches recording a track log (column 20, lines 15-31).

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Per claim 24, Fruchterman teaches calculating the course to avoid the area (column 17, lines 47-48).

Per claim 25, Fruchterman teaches verbal or Braille display to output the route to the user (column 3, lines 20-25).

Per claim 26, Fruchterman teaches using GPS to determine present location coordinates (column 7, lines 9-11) and a predetermined area around the area of exclusion (column 17, lines 24-49).

Per claim 27, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 28, Fruchterman teaches that the area of exclusion can be any area relevant to a blind pedestrian and gives an example of a body of water (column 5, lines 1-10).

Per claim 29, Fruchterman teaches a computer readable medium having a set of computer readable instructions (column 17, lines 53-57) for causing a device to perform a method including calculating a course between two or more waypoints (column 4, lines 47-54), analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34), and providing an alert signal when the course contains user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claims 30 and 31, Fruchterman teaches calculating the course to avoid the area (column 17, lines 47-48).

Per claim 32, Fruchterman teaches recalculating the course to avoid the area (column 17, lines 47-48).

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Per claim 33, Fruchterman teaches identifying points of interests that are not necessarily waypoints (column 8, lines 3-4).

Per claim 34, Fruchterman teaches using GPS to determine present location coordinates (column 7, lines 9-11) and a predetermined area around the area of exclusion (column 17, lines 24-49).

Per claim 35, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 36, Fruchterman teaches that the area of exclusion can be any area relevant to a blind pedestrian and gives an example of a body of water (column 5, lines 1-10).

Per claim 37, Fruchterman teaches a navigation device including a processor for calculating a course between two or more waypoints (column 4, lines 47-54), analyzing cartographic data for the course for user identified criteria to avoid (column 17, lines 24-34), and calculating the course to avoid the user identified criteria (column 17, lines 34-37 and lines 47-49).

Per claim 38, Fruchterman teaches calculating the course to avoid the area (column 17, lines 47-48).

Per claim 39, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 40, Fruchterman teaches calculating the course to avoid the area (column 17, lines 47-48).

Per claim 41, Fruchterman teaches identifying points of interests that are not necessarily waypoints (column 8, lines 3-4).

Per claim 44, Fruchterman teaches a navigation device including a processor, a GPS receiver, and a memory to determine present location coordinates (column 7, lines 9-11) and to analyze cartographic data for user identified criteria to avoid (column 17, lines 24-34).

Per claim 45, Fruchterman teaches warning the user when approaching the area of exclusion (column 17, lines 34-37).

Per claim 46, Fruchterman teaches recording a track log (column 20, lines 15-31).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to



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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fruchterman in view of Kronfeld et al. (US006577947B1).

Per claims 16-19, Smith teaches the invention as explained in the rejection of claim 14. Fruchterman does not teach using predetermined areas with radii extending along the predicted heading of the traveling direction. However, estimation of future position may take many different forms that are well known in the art. One alternative way to demarcate a future path is to determine an envelope or zone around the user. Kronfeld is exemplary of this teaching. In column 15, line 35 – column 16, line 17, Kronfeld teaches methods of representing a traveling vehicle for the purposes of determining intersection with a target area to be avoided. It would have been obvious to one of ordinary skill in the art, at the time of invention, to use an alternative method of predicting future position, such as radii extending along the path, as is well known and used in the art, as exemplified by Kronfeld.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fruchterman.

Per claim 42, Fruchterman teaches the invention as explained in the rejection of claim 37. Fruchterman further teaches voice instructions (column 6, line 62 – column 7, line 4). However, the invention taught by Fruchterman discloses a speech synthesizer, rather than the wireless transmission of voice data as claimed. Transmitting voice data instructions in a navigation system would have been well known to one of ordinary skill

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in the art at the time of the invention. Furthermore, because voice instructions are the “most fundamental” part of the Fruchterman system (see column 7, lines 1-2), it would have been obvious to one of ordinary skill in the art to modify the system of Fruchterman to ensure that voice data could be received from other sources than just the voice synthesizer.

Per claim 43, the FRS frequency is approved by the FCC to provide “traveler assistance” (see 47 CFR § 95.193(a)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a legally approved frequency to transmit the information.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burns (US 20020121989A1) teaches a method and system for providing personalized traffic alerts. Smith (US006845324B2) teaches a rotating map and user-centric weather prediction. Kelly et al. (US006654689B1) teaches a system and method for providing personalized storm warnings. Robinson et al. (US006381538B1) teaches a vehicle specific hazard estimation, presentation, and route planning based on meteorological and other environmental data. Upparapalli (US006362751B1) teaches a navigation system with a route exclusion list system. Feyereisen et al. (US006289277B1) teaches interfaces for planning vehicle routes. Behr et al. (US006104316A) teaches a computerized navigation system. Yano et al. (US006061629A) teaches a traffic navigation apparatus having a by-pass function.

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Poppen (US005893081A) teaches using multiple levels of costs for a pathfinding computation. DeGraaf (US005878368A) teaches a navigation system with user definable cost values. Tran et al. (US005635924A) teaches a travel route information monitor. DeLorme et al. (US005559707A) teaches a computer aided routing system. Behr et al. (US005543789A) teaches a computerized navigation system. Kirson (US005220507A) teaches a land vehicle multiple navigation route apparatus. Bateman et al. (US004646244A) teaches a terrain advisory system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG



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